



The following article is a continuation of "A Word of Warning" published in our October 2016 magazine, and is reproduced here with kind permission from the author, ALAN HAMES, C.Eng., MICE, MCIHT  
Alan is a multiple concours winner in UK, with his 1972 E Type V12 - AVV 1 - which he has owned from new.

## **A Second & Serious V12 'E' Type Petrol Leak and Fixing Procedure**

Having so recently experienced and fixed one petrol leak, the last thing I was expecting was a second, but it seems that one thing leads to another! With the previously reported faulty carburettor linking tube fixed and being ready to take AVV 1 out, I was once again forestalled by a flat battery and the arising clatter of a starter motor solenoid with insufficient battery voltage to power the starter and turn over the engine. But luck was with me, as with a switched off ignition that had just sufficient power to run the petrol pump, I was again greeted by a very distinct smell of petrol. On lifting the bonnet, it was clear that this was not just a minor leak and was again located in the vicinity of the two nearside carburettors.

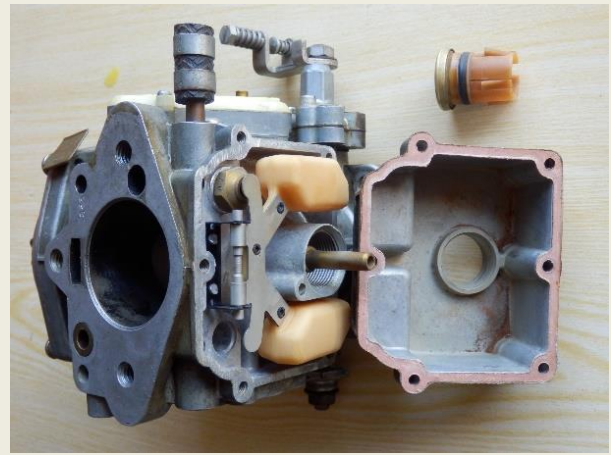
A quick inspection without any difficulty speedily localised the problem to the underside of the forward carburettor and it was clear that at least a small cupful of fuel had been deposited from somewhere beneath, immediately the fuel pump had engaged. If I had driven away, this serious leakage would have continued in a most dangerous fashion, as the float chamber was being continuously supplied with fuel under pressure.

A strip down of linkages, pipework, air cleaner box and the main petrol feed was therefore essential and proceeded with invaluable help from my son Ashley, who handed spanners and other tools to me to speed up the operation. The carburettor itself was not an easy removal, as one of the bottom retaining nuts is almost completely inaccessible and no spanner could shift it. However and by chance, an RAC patrol was fixing a car opposite my home and a call for assistance was happily answered. He too found the same problem, but not deterred cut one of his spanners in half to fit into the restricted area and with this successfully achieved the near impossible. His help clearly reinforced the value of being an RAC member and on leaving he donated the two spanner halves to me, to ensure that I would have no further difficulties. A cold drink for him on a hot day being the only cost - good old RAC!! A useful suggestion at this point, when taking so much apart, try to put an old towel in place under the work area to catch that elusive nut or bolt, which will inevitably escape the fingers and then find its way into an inaccessible corner. It certainly saved me on a series of occasions!!

With the one carburettor removed, it was then clear that the problem was located in the underside of the float chamber, which was awash with fuel. Dismantling soon found that the bottom sealing plug was spinning loose due to failure of the internal rubber sealing "O" ring, which had flattened and hardened. A call to my local Jaguar Distributor found, on this occasion, that this small and essential part is no longer listed by Jaguar, but once again my friendly man at S N G Barratt came to the rescue, with new parts delivered overnight, so not delaying the repair. With one faulty float chamber and so much dismantled, it was clear that both nearside Strombergs needed to be removed for a similar repair, which then followed. Later all four carburettors will have to receive the same treatment, as the likelihood is that all will subsequently suffer the same problem.



**Carburettor Removal - Req'd. Cut Down Spanners**



**Carb. and Failed Float Chamber Base Plug**

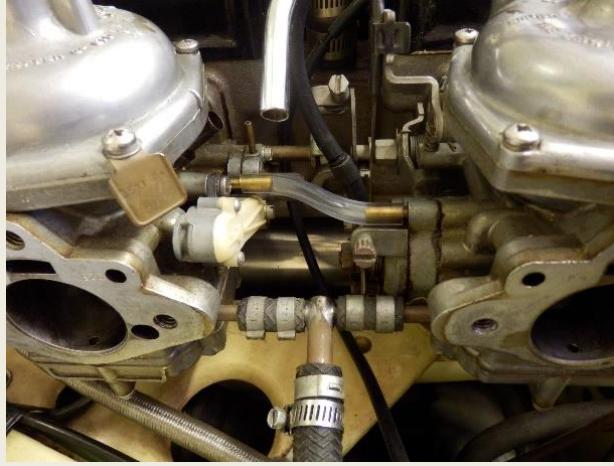
During reattachment of the float chamber bottom alloy casting, it was noticed that there was a fretted area on the external edge of the float chamber, which had extended to about half the casting thickness. This had arisen from the steel braided petrol return hose over the years touching and abrading the float chamber base. This was corrected by re-angling the braided pipe, but is another area that I suggest is inspected by all V12 'E' Type drivers, as over time this could wear a hole through the float chamber base.



**Base of Float Chamber Fretted by Steel Braided Petrol Return Pipe**

The subsequent reassembly of the carburettors onto the inlet manifold should have been straightforward, but be sure not to do as I did and attempt this one carburettor at a time!! You will then find that the central linkage mechanism will not allow reconnection together if one carburettor has been independently refitted onto the inlet manifold. So be sure to remove the pair and preassemble both carburettors on the bench to join the linkages and then fit the pair as a single unit. I will be sure not to waste time in this manner, when I repeat the process on the offside pair!!

With the major leak now resolved and all apparently well, the ignition key was turned and the petrol pump kicked in. But, being by now so aware that one leak seems to lead to another, a further inspection was made before firing up the engine. A good move, as the bottom main fuel linkage, via a Tee piece to the two float chambers, was leaking on both sides. An easy diagnosis determined that the now 44-year-old four crimp connectors on the two rubber tubes had all loosened, requiring either a recrimping, or the substitution of four new small jubilee clips. (I was happily able to manage a careful recrimp of the original clamps.)



### **Left & Right Petrol Feed Rubber Tubes Crimped onto T Piece & Causing a Third Leakage**

With all systems now functioning and no other petrol leakages, (third time lucky?), I am now looking forward to being able to drive my car, possibly without the fuel and oil smells that have for years been noticeable in the car on any trip? It is clear that leaks have been an undetected problem for a considerable time and maybe now when I drive AVV 1, it will be without the evident smell of fuel and oil on me and my clothes, which we all seem to think is part of driving an older classic car? Only time will tell and could perhaps solve the same annoying smell reported by so many other V12 'E' Type drivers - **and my wife!!!**

**Once again, if this has happened to me, then all you V12 E Type drivers need to check out your carbs!!!**